



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

C45-C
Job Sheet 172256



Part No: C45-C

Job Qty: 1 ea

Part Name: Single Cage Assembly (C45 & C60 Hook)



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 2/14/18

Job Tracking No:

Due Date: 2/28/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: C45-C rev.4 IPP REV:A 18.01.22 NEW ISSUE DD VERF:DP

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		2/27/18	0.00	0.00	Start Up Small Fab-1		SPB
100	Small Fab	1 pcs		2/28/18	0.00	0.50	Small Fab-9		AP
120	QC	1 pcs		2/28/18	0.00	0.00	QC5		SP
140	Packaging	1 pcs		2/28/18	0.00	0.00	Packaging3-1		SP
160	QC21-SA	1 Ea		2/28/18	0.00	0.00	QC21		21 FEB 20 2018

Part Op 100 - ASSEMBLE AS PER DWG ***HAND TIGHT ALL BOLTS, SPREAD CUTTER PIN JUST ENOUGH THAT IT THOSE
Descriptions: NOT FALL OFF***

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
AN8-23A	Bolt	2 Ea (2 ea)	90-Start up Operation	S039331
C45-15-10	Ford Bumper	1 Ea (1 ea)	100-Small Fab	S041949 5042853
C45-15-11	Nut, Cage Bumper	1 Ea (1 ea)	100-Small Fab	S043023
C45-15-12	Washer, Cage Bumper	1 Ea (1 ea)	100-Small Fab	S043024
C45-15-2	Lifting Bolt	1 Ea (1 ea)	100-Small Fab	S043025
C45-15-3	Lifting Bolt Castle Nut	1 pcs (1 ea)	100-Small Fab	S043028
C45-15-6	Bushing, Lifting	1 Ea (1 ea)	100-Small Fab	S043029
C45-15-7	Washer, Lifting Bolt	2 pcs (2 ea)	100-Small Fab	S043030
C45-15-9	Cotter Pin	1 Ea (1 ea)	100-Small Fab	S043031
C45-18-7	Shim	4 Ea (4 ea)	100-Small Fab	S036839
C45-19C	Weldment	1 Ea (1 ea)	100-Small Fab	S170906
MS21044-N8	NUT, SELF LOCK 0.500-20, UNJF-3B	2 Ea (2 ea)	100-Small Fab	S036471
NAS1149F0863P	Washer → NAS 1149F0832P	1 Ea (4 ea)	100-Small Fab	F18057

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	AN8-23A	2	10	0
100-Small Fab	C45-15-10	1	0	0
	C45-15-11	1	50	0
	C45-15-12	1	20	0
	C45-15-2	1	0	0
	C45-15-3	1	11	0
	C45-15-6	1	0	0
	C45-15-7	2	20	0
	C45-15-9	1	50	0

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

C45-18-7	4	10	0
C45-19C	1	1	0
MS21044-N8	2	0	0
NAS1149F0863P	4	200	0

Part Specifications

Specifications could not be found.

Plex 2/14/18 1:42 PM Dart.lajeunesse.marie



Container No: S042471



Part: C45-C

Serial No/Batch: S042471

Revision: C45-HC

Inspector:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 813 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 02/14/18 16:17 PM

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

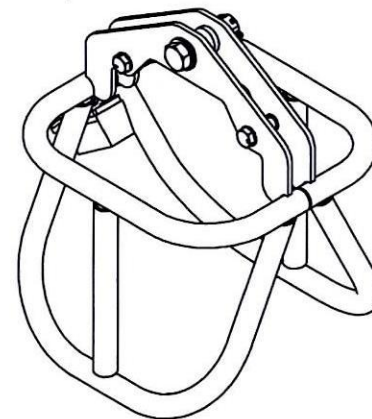
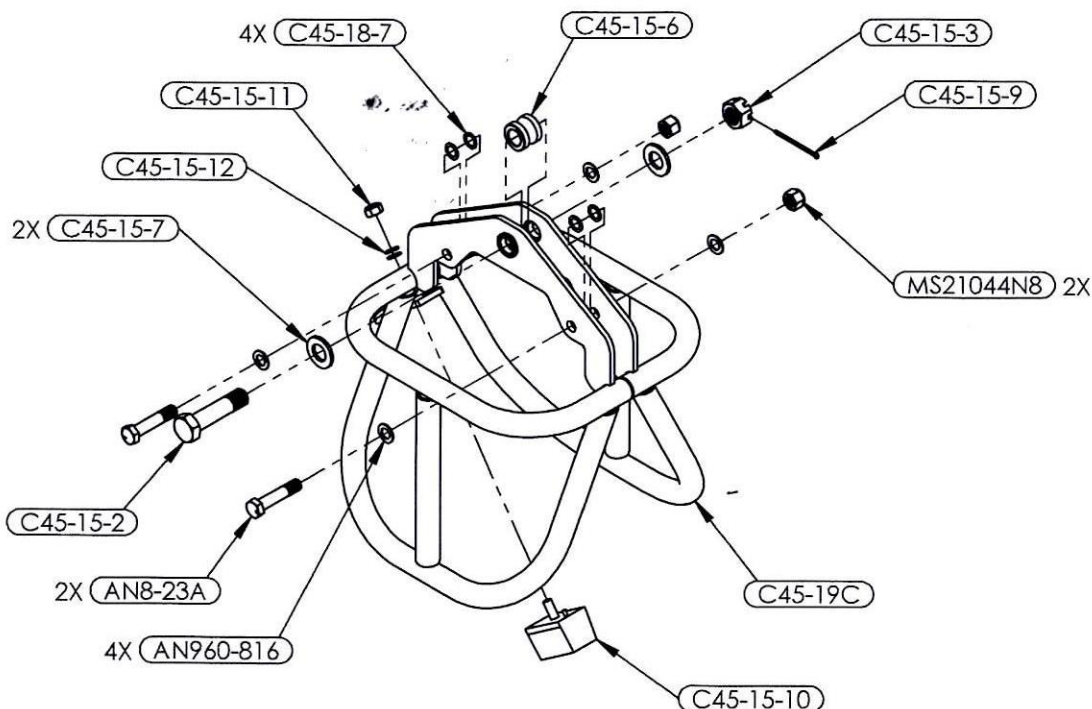
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Skid-tube ☐</td> <td style="width: 15%;">Cross tube ☐</td> <td style="width: 15%;">Water Jet ☐</td> <td style="width: 15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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OTHER :																									

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REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
3		AS DRAWN BY APICAL	11/6/2012	JAG
4	15-0180	UPDATED TO NEW DRAFTING STANDARDS. CH'D P/N WAS C45-15-8 IS AN960-816. C45-15-4 DELETED, REPLACED WITH AN8-23A. C45-15-5 DELETED, REPLACED WITH MS21044N8. C45-18-7 ADDED TO BOM QTY 4.	7/22/2015	DPD



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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 170939 ML3
172256 18-01-24

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS
			C45-19C	1	WELDMENT		
			C45-15-2	1	LIFTING BOLT	STEEL	3/4-16 X 4-1/2, GRADE 8 (MCMaster-CARR #91257A879) MODIFIED
		B/O	C45-15-3	1	CASTLE NUT	STEEL	3/4-16 (MCMaster-CARR #95030A270)
		B/O	C45-15-7	2	LIFTING BOLT WASHER	STEEL	3/4 (MCMaster-CARR #98023A036)
		B/O	C45-15-9	1	COTTER PIN	S.S.	Ø1/8 X 2-1/2 (MCMaster-CARR #98401A481)
			C45-15-10	1	FORD BUMPER		[#E3TZ-4730-A] MODIFIED
		B/O	C45-15-11	1	CAGE BUMPER NUT	STEEL	M10, CLASS 8 (MCMaster-CARR #90576A118)
		B/O	C45-15-12	1	CAGE BUMPER WASHER	STEEL	3/8 (MCMaster-CARR #91074A131)
			C45-15-6	1	LIFTING BUSHING	4140/4142	
		B/O	C45-18-7	4	SHIM	STEEL	.025 X Ø.511 I.D. (MCMaster-CARR #3088A412)
		B/O	AN8-23A	2	BOLT	STEEL	1/2-20 X 1.47
		B/O	AN960-816	4	LIFTING BOLT WASHER	STEEL	Ø1/2
		B/O	MS21044N8	2	NUT	STEEL	1/2-20

		TITLE	
		C45 CAGE	
DWG NO.		C45-C	REV 4
MATERIAL		DRAWN BY: APICAL	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 XX ± .01 X ± .1		APPROVED <i>D Weil</i>	
FRACTIONS ± 1/8 ANGLES ± 5°		HEAT TREAT FINISH	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R		SPEC	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING		USED ON MODEL	
SCALE 1:8	DATE 2/15/2002	SHEET 1 OF 1	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
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Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								